



EDUSAMBAM ASSESSMENT SERIES

What Is AI & Machine Learning?

PRINTABLE PRACTICE WORKSHEET

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Candidate Name:		Roll No.:	
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Subject	Artificial Intelligence (AI)	Topic	What Is AI & Machine Learning?	Total Marks	100
Total Questions	45	Time Allowed	1 Hour (60 minutes)	Version	A

GENERAL INSTRUCTIONS

1. Read each question carefully before answering.
2. For Section A and Section B, mark one answer only.
3. For Sections C and E, write your answer clearly in the space provided.
4. For Section D, write the correct letter from Column B against each item in Column A.
5. Do not use correction fluid. Keep all answers clear and legible.
6. This worksheet is prepared from the EDUSAMBAM practice assessment supplied for this paper.

PAPER PATTERN

Section	Questions	Marks Each	Total
Section A — Multiple Choice	15	2	30
Section B — True / False	10	2	20
Section C — Fill in the Blank	10	2	20
Section D — Column Matching	5 pairs	2	10
Section E — Short Answer	5	4	20
Total	45	—	100

Section A — Multiple Choice

30 marks

1. What is artificial intelligence (AI)?

- A.** A type of computer hardware
C. Machines performing tasks that normally need human intelligence

- B.** The internet as a whole
D. A brand of computer chip

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

2. What is "narrow AI"?

- A.** AI that can do absolutely anything a human can
C. A very small computer

- B.** AI designed to do one specific task well
D. AI that has emotions

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

3. What was the Turing Test designed to explore?

- A.** Whether a machine's responses can be told apart from a human's
C. How much memory a computer has

- B.** How fast a computer can process data
D. How many programming languages a machine knows

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

4. Which of these is a real-world example of AI in everyday use?

- A.** A basic calculator
C. A voice assistant like Siri or Alexa

- B.** A plain text file
D. A USB cable

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

5. What is an algorithm?

- A.** A physical computer part
C. A brand of AI software

- B.** A type of internet connection
D. A step-by-step set of instructions for solving a problem

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

6. How do most modern AI systems arrive at their outputs? A. By guessing randomly C. By asking a human for every answer Answer: ☐ A ☐ B ☐ C ☐ D	B. By recognising patterns learned from data D. By using a dictionary only	Intermediate • 2 pts
7. Self-driving cars, recommendation feeds, and spam filters are all examples of what? A. AI applications in everyday life C. Internet protocols Answer: ☐ A ☐ B ☐ C ☐ D	B. Types of computer hardware D. Operating systems	Intermediate • 2 pts
8. What is machine learning? A. Manually programming every possible outcome C. Repairing a computer's memory chips Answer: ☐ A ☐ B ☐ C ☐ D	B. A field of AI where systems learn patterns from data rather than fixed rules D. A type of internet browser	Intermediate • 2 pts
9. What is "training data" used for? A. Storing finished software C. Teaching a machine learning model to recognise patterns Answer: ☐ A ☐ B ☐ C ☐ D	B. Connecting a device to Wi-Fi D. Cooling down a computer's processor	Intermediate • 2 pts
10. In supervised learning, what does the training data include? A. Nothing but random noise C. Data with no correct answers attached Answer: ☐ A ☐ B ☐ C ☐ D	B. Only images, never text D. Labelled examples that show the correct answer	Intermediate • 2 pts
11. What does unsupervised learning do? A. Requires a human to label every example first C. Only works with numbers, never words Answer: ☐ A ☐ B ☐ C ☐ D	B. Finds patterns or groupings in data that has no labels D. Repairs bugs in existing software	Intermediate • 2 pts
12. What is reinforcement learning built around? A. An agent learning through rewards and penalties for its actions C. Deleting incorrect training examples Answer: ☐ A ☐ B ☐ C ☐ D	B. Copying a fixed answer key exactly D. Sorting files alphabetically	Advanced • 2 pts
13. What is a neural network loosely modelled on? A. A car engine C. The structure of neurons in the human brain Answer: ☐ A ☐ B ☐ C ☐ D	B. A filing cabinet D. A spreadsheet	Advanced • 2 pts
14. What is deep learning? A. Learning that only happens overnight C. A method for repairing broken hard drives Answer: ☐ A ☐ B ☐ C ☐ D	B. Machine learning using neural networks with many layers D. A synonym for the internet	Advanced • 2 pts
15. How is machine learning generally related to AI? A. They are unrelated fields C. Machine learning replaced AI entirely Answer: ☐ A ☐ B ☐ C ☐ D	B. AI is a small part of machine learning D. Machine learning is a subset, or branch, of AI	Advanced • 2 pts

Section B — True / False

20 marks

16. AI systems can perform tasks that typically require human intelligence, such as recognising speech or images. A. True ☐ B. False ☐	Basic • 2 pts
17. Every AI system in use today is self-aware and conscious. A. True ☐ B. False ☐	Basic • 2 pts
18. Machine learning is considered a subset of artificial intelligence. A. True ☐ B. False ☐	Basic • 2 pts
19. In supervised learning, the training data includes labels showing the correct answer. A. True ☐ B. False ☐	Basic • 2 pts
20. Unsupervised learning requires every piece of training data to be labelled first. A. True ☐ B. False ☐	Intermediate • 2 pts
21. Reinforcement learning rewards an agent for good decisions and penalises poor ones. A. True ☐ B. False ☐	Intermediate • 2 pts

22. More and better quality training data generally helps a machine learning model perform better.
A. True ☐ B. False ☐

23. Neural networks have no connection at all to how the human brain works.
A. True ☐ B. False ☐

24. Deep learning uses neural networks with many layers to learn complex patterns.
A. True ☐ B. False ☐

25. Narrow AI is designed to perform one specific task well, rather than everything a human can do.
A. True ☐ B. False ☐

Section C — Fill in the Blank

20 marks

26. _____ is the ability of machines to perform tasks that normally require human intelligence.
Answer: _____

27. A(n) _____ is a step-by-step set of instructions a computer follows to solve a problem.
Answer: _____

28. Machine learning is a _____ of artificial intelligence.
Answer: _____

29. The data used to teach a machine learning model is called _____ data.
Answer: _____

30. In supervised learning, each example in the training data is tagged with the correct _____.
Answer: _____

31. _____ learning finds patterns or groupings in data that has no labels.
Answer: _____

32. In reinforcement learning, an agent learns by receiving _____s and penalties for its actions.
Answer: _____

33. A _____ network is a layered system of nodes loosely modelled on the human brain.
Answer: _____

34. _____ learning uses neural networks with many layers to learn complex patterns.
Answer: _____

35. When a model performs well on training data but poorly on new, unseen data, this is called _____.
Answer: _____

Section D — Column Matching

10 marks

36-40. Match each term to its correct definition.

Column A	Answer	Column B
Algorithm	_____	A. Learning from labelled data with known correct answers
Supervised Learning	_____	B. Finding patterns in data that has no labels
Unsupervised Learning	_____	C. Learning through rewards and penalties for actions taken
Reinforcement Learning	_____	D. A layered system of nodes loosely modelled on the brain
Neural Network	_____	E. A step-by-step set of instructions for solving a problem

Section E — Short Answer

20 marks

41. What is the difference between artificial intelligence and machine learning?

42. Give an example of a real-world application of AI.

43. What is the key difference between supervised and unsupervised learning?

Advanced · 4 pts

44. Why is training data important for a machine learning model?

Advanced · 4 pts

45. What is deep learning, and how does it relate to neural networks?

Advanced · 4 pts

Candidate Signature: _____ **Invigilator Signature:** _____

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Marks Obtained: _____ / 100

Checked By: _____

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What Is AI & Machine Learning? — Answer Key

Teacher reference: equivalent grammatically correct wording is acceptable for open-ended items when the meaning is preserved.

Section A — Multiple Choice

- | | |
|------|-------|
| 1. C | 9. C |
| 2. B | 10. D |
| 3. A | 11. B |
| 4. C | 12. A |
| 5. D | 13. C |
| 6. B | 14. B |
| 7. A | 15. D |
| 8. B | |

Section B — True / False

- | | |
|-----------|-----------|
| 16. True | 21. True |
| 17. False | 22. True |
| 18. True | 23. False |
| 19. True | 24. True |
| 20. False | 25. True |

Section C — Fill in the Blank

- | | |
|-----------------------------|------------------|
| 26. artificial intelligence | 31. unsupervised |
| 27. algorithm | 32. reward |
| 28. subset | 33. neural |
| 29. training | 34. deep |
| 30. label | 35. overfitting |

Section D — Column Matching

- | | |
|-------------------------------|--------------------------------|
| 36. Algorithm — E | 39. Reinforcement Learning — C |
| 37. Supervised Learning — A | 40. Neural Network — D |
| 38. Unsupervised Learning — B | |

Section E — Short Answer (Model Answers)

- 41.** subset; branch; part of; not all ai; broader
- 42.** assistant; chatbot; recommendation; self-driving; voice; siri; alexa; netflix; spotify; spam filter; maps; navigation
- 43.** label; unlabeled; unlabelled; without labels; correct answer
- 44.** learn; pattern; accuracy; quality; examples; improve
- 45.** layer; neural network; multiple layers; deep